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	Substitute	e for form 1449A/PT()			Complete if Known 10 696 003	
					Application Number	10/027,421	
	INFO	RMATION	DIS	CLOSURE	Filing Date	DECEMBER 20, 2001 10 29 03	
	STATEMENT BY APPLICANT				First Named Inventor	VLADIMIR GRUSHIN ET AL.	
					Group Art Unit	2815 2-813	
		(use as many she	ets as	necessary)	Examiner Name UNKNOWN ERIT LIEU		
abla	Sheet	1	of	2	Attorney Docket Number	PE0649 US CIP	

				U.S. PATI	ENT DOCUMENTS	
Examiner Initials *	Cite No.1	Document Number Number - Kind Code ² (if known)		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
5 K		US-	2001/0019782 A1	09/06/2001	IGARASHI ET AL.	
GK		US-	2001/0053462 A1	12/20/2001	MISHIMA	
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Examiner	Cite	Foreig	n Patent Doo	ument	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where	
Initials*		CountryCode ³	Number ⁴	Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	To
EK		EP	1175128	A2	01/23/2002	FUJI PHOTO FILM CO.		
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PTO/SB/08B (10-01)
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	Substitute	o for form 144	9A/PTO		Complete if Known	10/696003		
		D	ON 51001 001155	Application Number	10/027,421			
			ON DISCLOSURE	Filing Date	DECEMBER 20, 2001 10 29			
	STAT	remen	T BY APPLICANT	First Named Inventor	VLADIMIR GRUSHIN ET AL.			
				Group Art Unit	2815 2813			
		(use as ma	ny sheets as necessary)	Examiner Name	UNKNOWN ERIK KIELIN			
_	Sheet	2	of 2	Attorney Docket Number	10/027,421			

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²					
En		DJUROVICH, PETER I. ET AL., tr(III) Cyclometalated Complexes As Efficient Phosphorescent Emitters In Polymer Bland and Organic LEDs, Polymer Preprints, 2000, 770-771, 41(1)						
En		CHATANI, NAOTO ET AL., Ru3(CO)12-Catalyzed Reaction of Pyridylbenzenes with Carbon Monoxide and Olefins. Carbonylation at a C-H Bond in the Benzene Ring, J. Org. Chem., 1997, 2604-2610, 62, American Chemical Society						
EK		GOSMINI, CORINNE ET AL., Electrosynthesis of functionalized 2-arylpyridines from functionalized aryl and pyridine halides catalyzed by nickel bromide 2,2'-bipyridine complex, Tetrahedron Letters, 2000, 5039-5042, 41, Elsevier Science Ltd.						
EK		CACCHI, SANDRO ET AL., The Palladium-Catalyzed Transfer Hydrogenation/Heterocyclization of 8-(2- Aminophenyl-a,B-ynones. An Approach to 2-Aryl- and 2-Vinylquinolines, Synlett, 1999, 401-404, No. 4, Thieme Stuttgart, New York						
ER		BALDO, M. A. ET AL., Very high-efficiency green organic light-emitting devices based on electrophosphorescence, Applied Physics Letters, July 5, 1999, 4-6, 75(1) American Institute of Physics						
EL		BALDO, M. A. ET AL., High-efficiency fluorescent organic light-emitting devices using a phosphorescent sensitizer, Nature, February 17, 2000, 750-753, 403, Macmillan Magazines Ltd.						
Er		WANG, YUE ET AL., (Hydroxyphenyl)pyridine derivative, its metal complexes and application as electroluminescence material, Chemical Abstracts Service, March 1, 2000, Database No. 133:315395						
CK		DEDEIAN K. ET AL., A New Synthetic Route to the Preparation of a Series of Strong Photoreducing Agents: fac Tris-Ortho-Metalated Complexes of Iridium(III) with Substituted 2-Phenylpyridines, Inorg. Chem., 1991, 1685- 1687, 30(8), American Chemical Society						
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Examiner Signature		Date Considered 4/13/205						

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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO Complete if Known 10/696 003 Application Number 10/027,421 INFORMATION DISCLOSURE **DECEMBER 20, 2001** Filing Date 10/29/03 STATEMENT BY APPLICANT First Named Inventor VLADIMIR GRUSHIN ET AL Group Art Unit 2815 2813 (use as many sheets as necessary) LINKHOWN ERIK KIEUN Examiner Name Sheet of 2 Attorney Docket Number PE0649 US CIP

				U.S. PATENT DOCUM	MENTS	
Examiner Initials *	Cite No.'	U.S. Patent Document Kind Code ² (If known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
En		5,552,678		TANG ET AL.	09/03/96	
Er		2001/0019782	A1	IGARASHI ET AL.	09/06/01	
CK		60/347,910		LECLOUX ET AL.	11/07/01	
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Examiner Initials*	Cite No.1	Office ³		ind Code⁵ (if known)	or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	То	
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1 Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 2 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark hee If English language Translation is attached.

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			01.001105	Application Number	10/027,421		
			CLOSURE	Filing Date	DECEMBER 20, 2001 10	29/3	
STATEMENT BY APPLICANT				First Named Inventor	VLADIMIR GRUSHIN ET AL.		
				Group Art Unit	2815 2813		
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Sheet	2	of	2	Attorney Docket Number	PE0649 US CIP		

	-	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ²					
		BALDO, M.A. et al., High-efficiency fluorescent organic light-emitting devices using a phosphorescent sensitizer, Nature, February 17, 2000, 750-753, Vol. 403						
		DJUROVICH, PETER I, et al., Ir(III) Cyclometalated Complexes as Efficient Phosphorescent Emitters in Polymer Blend and Organic LEDs, Polymer Reprints, 2000, 770-771, 41(1)						
		BALDO, M.A. at al., Very high-efficiency green organic light-emitting devices based on electrophorescence, Applied Physics Letters, July 5, 1999, 4-6, 75(1), American Institute of Physics						
CK		LOHSE, OLIVIER, et al., The Palladium Catalysed Suzuki Coupling of 2- and 4-Chloropyridines, Synlett, 1999, 45- 48, No. 1, Thieme Suttgart, New York						
Ex		BALDO, M.A. et al., Highly efficient phosphorescent emission from organic electroluminescent devices, Nature, September 10, 1998, 151-154, Vol 395						
		DEDEIAN, K. et al, A New Synthetic Route to the Preparation of a Series of Strong Photoreducing Agents: (ac Tris-Ortho-Metalated Complexes of tridium (III) with Substituted 2-Phenylpyridines, Inorgenic Chemistry, 1991, 1685-1687, 30(8)						
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Examiner Signature

¹ Unique citation designation number, 2 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-03)

UNKNOWN ERIK KIELIN

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE ins are required to respond to a collection of information unless it contains a valid QMB control number. UCI 1 3 2004 Substitute for form 1449A/PTO Complete if Known **Application Number** 10/696,003 INFORMATION DISCLOSURE Filing Date **OCTOBER 29, 2003** STATEMENT BY APPLICANT First Named Inventor VLADIMIR GRUSHIN Group Art Unit 2813

Attorney Docket Number PE0649USDIV3

				U.S. PATI	ENT DOCUMENTS	
Examiner	Cite	Document Number Number - Kind Code ² (if known)		Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
Initials *				MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
EL		US -	6,303,238 B1	10-16-2001	Thompson et al.	
Ex		US -	6,670,645 B2	12-30-2003	Grushin et al.	
EK		US -	2001/0019782 A1	09-06-2001	Igarashi et al.	
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Examiner	Cite	Foreign Patent Document	Publication Date		Pages, Columns, Lines, Where Relevant Passages or Relevant	
Initials*	No.	CountryCode ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear	T ₀
EK		EP 1 191 614 A2	03-27-2002	Canon Kabushiki Kaisha		
24		WO 00/57676 A1	09-28-2000	Univ. of Southern California		
EL		WO 01/41512 A1	06-07-2001	Princeton Univ & University of Southern California		
EK		WO 02/02714 A2	01-10-2002	DuPont		
CK		WO 02/15645 A1	02-21-2002	Princeton Univ, Univ of So Cal & Universal Display		
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Examiner Signature	E-Kun	Date Considered	4/13/205

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STATEMENT BY APPLICANT

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Complete if Known				
Application Number	10/696,003			
Filing Date	October 29, 2003			
First Named Inventor	VLADIMIR GRUSHIN ET. AL.			
Group Art Unit	2813			
Examiner Name	HIKNOWN ERIK KIELIN			
Attorney Docket Number	PE0649USDIV3			

Sheet	2	of 2 Attorney Docket Number PE0549USDIV3					
OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS							
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
Er		LAMANSKY, SERGEY ET AL., Highly Phosphorescent Bis-Cyclometalated fridium Complexes: Synthesis, Photophysical Characterization, and Use In Organic Light Emitting Diodes, J. Am. Chem. Soc., 2001, 4304-4312, 123, American Chemical society					
EK		LAMANSKY, SERGEY ET AL., Synthesis and Characterization of Phosphorescent Cyclometalated Indium Complexes, Inorg. Chem. 2001, 1704-1711, 40, American Chemical Society					
EK		LAMANSKY, SERGEY ET AL., Molecularly doped polymer light emitting diodes utilizing phosphorescent Pt(II) and IR(III) dopants, Organic Electronics, 2001, 53-62, 2, Elsevier Science B.V.					
EK		ABSTRACT OF JAPANESE PCT Publication W002/44189 A1, Luminescent Element and Display, 08-08-2002, Canon Kabushiki Kaisha					
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